ABERDEEN FOAM FRF

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Forest and Rural Fire Retardant

A high quality short term forest fire retardant concentrate which provides excellent surfactant properties, accelerating the extinguishment process to improve safety and provide more stable foam.

Designed to quickly extinguish and secure Class A fires including forest and wildfires, Aberdeen Foam FRF is able to provide a barrier between the fire and emergency personnel in order to control and suppress the flames.

The complex mix of surfactants, solvents and hydrocarbons creates a low viscosity foam with a low freeze point. The exceptional wetting abilities of Aberdeen Foam FRF means that the foam permeates deep into the source of the fire and secures extinguishment which prevents burn back occurring.

Formulated for use with either fresh or seawater.

FEATURES

- Provides quality protection from Class A fire risks such as:
- Rubber tyres • Coal • Paper & wood • Forest fires
- Economical - proportioning rates of between 0.1% and 1.0%
- Versatile - can be used in different equipment and application methods
- Easily premixed and excellent foaming properties

EN 1568: 2008 Parts 1&3

FLUORINE FREE

EPA 2015 COMPLIANT

FRF

PHYSICAL PROPERTIES

Appearance	Clear yellow liquid
Specific gravity	1.015 - 1.030
pH at 20°C	6.5 - 8.5
Viscosity (Brookfield) @ 20°C mPas	< 25
Viscosity (Brookfield) @ 0°C mPas	< 60
Freezing point (°C)	< -8
Lowest use temp. (°C)	-8
Surface tension @ 20°C (N/m)	<30
BOD/COD_{28}	>90%
Low expansion index @ 1.0%*	> 8
25% drainage - low expansion (minutes)	> 6
Medium expansion index @ 1.0%*	> 100
25% drainage - medium expansion (minutes)	> 6
High expansion index @ 1.0%*	> 300
25% drainage - high expansion (minutes)	> 6
Max. storage temp.(°C)	50
Min. storage temp.(°C)	-5
Freeze/thaw effect	None

* Foam quality will depend on the foam equipment used and the operating conditions. The above are tested in accordance with UK Defence Standard 42-40.

FOAMING PROPERTIES

Foam expansion properties will vary depending on several factors including:

- Using salt or fresh water
- Water hardness
- Equipment characteristics
- Equipment flow rate

For example, aspirating devices will produce typical expansion ratios of between 6:1 and 10:1 and non-aspirating devices between 2:1 and 4:1.
Always check your equipment's operation manual for guidance.

APPLICATIONS

Aberdeen Foam FRF provides quality protection wherever Class A materials (ie. tyres, paper, wood) present a fire risk. Suitable for use at Class B minor incidents such as small hydrocarbon liquid spill fires. Not suitable for use on fuels which are polar solvents and water miscible such as alcohols, ketones, aldehydes and ethers.

PROPORTIONING EQUIPMENT

Readily proportioned with the following equipment:

- In-line inductors (fixed or portable)
- Balanced pressure variable flow proportioners
- Around the pump proportioners
- Bladder tank Balanced Pressure proportioning skid
- Handline, aspirating nozzles with fixed inductor pickup tube

DISCHARGE EQUIPMENT

Aberdeen Foam FRF concentrate is designed for use with:

- Foam chambers
- Aspirating and non-aspirating sprinklers or spray nozzles
- Water fog nozzles for handlines and monitors
- Foam makers for use with either Floating Roof or Bund Protection systems

PROPORTIONING INFORMATION

Use between the following proportions:

- For use as a wetting agent: 0.1 - 0.2%
- For air attack: 0.4 - 0.6%
- For creating structural foam layer in order to stick to walls, trees, etc: 1%

Designed for use with an electronic proportioner. To ensure accurate proportioning a CAFS system is recommended.

ENVIRONMENTAL IMPACT

- Biodegradable (>90% BOD/COD 28 days)
- Butyl carbitol free
- Fluorine free
- Low toxicity to aquatic organisms
- No adverse consequence on cultivation

STORAGE AND SHELF LIFE

Best stored as supplied in original, unopened containers. Suitable for storage in containers and tanks manufactured from:

- Stainless steel (Type 304L or 316L)
- High density cross-linked polyethylene
- RFP – vinyl ester epoxy resin only

If kept in the original manufacturer's supplied container and stored between -5°C and 50°C, a shelf life of at least 10 years can be expected.
To prolong the shelf life of any foam concentrate, do not expose to temperature extremes and prevent contamination from foreign materials.

DISPOSAL

Produced Aberdeen Foam FRF can be safely disposed of in biological waste water treatment systems.

COMPATIBILITY

Our laboratory tests have shown Aberdeen Foam FRF is compatible in all proportions with other high quality aqueous film forming foams and ABC and BC fire fighting powders.
As recommended by NFPA 11, we would advise that if mixing foam concentrates from different manufacturers a compatibility study is carried out beforehand.
Different types of foam concentrates - for example Class A and Protein Foams - should never be mixed.
For further information or advice on compatibility testing, please contact Oil Technics Limited.

INSPECTION AND TESTING

As recommended by NFPA11, BS.EN 13565-2:2009 and BS 5306, Aberdeen Foam foam concentrates should be inspected and tested at least annually as part of your fire fighting foam maintenance programme.
Oil Technics Limited offers a worldwide foam testing service and inhouse foam testing training. For further details, please contact us or visit our website: www.foamtesting.com

TECHNICAL SERVICES AND SALES SUPPORT

For our UK customers, Aberdeen Foam is available 24/7 via our 24 hour emergency call out service: +44 (0) 1561 361515
Aberdeen Foam is manufactured in Scotland under ISO 9001 and ISO 14001 accredited management systems and audited by UL every four months.

PACK SPECIFICATIONS

Aberdeen Foam concentrates are available in the following sizes:

Capacity	**20L**	**25L**	**200L**	**1000L**	**Bulk tank**
Dimensions (cm)	399 x 294 x 245	470 x 294 x 245	920 x 581 x 581	102 x 100 x 116	TBC
Empty weight (kg)	0.8	0.9	8	60	TBC
Filled weight (kg)	22.2	27.6	222	1130	TBC

These measurements are for reference purposes only and are intended as guidelines only. Oil Technics Ltd reserve the right to modify any specification at any time and without prior notice.

ABERDEEN FOAM
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